JPK

OPEN ACCESS

Jurnal Pengembangan Kota (2020)
Volume 8 No. 1 (58–66)
Tersedia online di:
http://ejournal2.undip.ac.id/index.php/jpk
DOI: 10.14710/jpk.8.1.58-66

APPLICATION OF IMPORTANCE PERFORMANCE ANALYSIS (IPA) METHOD FOR GENDER BASED PUBLIC TRANSPORTATION PLANNING IN CORRIDOR I BUS RAPID TRANSIT SEMARANG CITY

Landung Esariti*, Kharunia Putri and Hadi Wahyono
Urban and Regional Planning Department, Engineering Faculty,
Diponegoro University, Semarang, Indonesia

Abstrak. *Perencanaan transportasi umum berbasis gender memastikan dapat mengakomodasi preferensi semua kelompok pengguna untuk meminimalkan ketidaksetaraan dan diskriminasi diantara kebutuhan penumpang. Dalam praktik mengakses BRT Koridor I di Kota Semarang, teridentifikasi ada 3 aspek yang menentukan kesenjangan, yaitu: keamanan, kenyamanan dan aksesibilitas. Importance Performance Analysis digunakan untuk menggambarkan tingkat kesenjangan akses dengan membandingkan kinerja layanan yang disediakan dengan harapan penumpang. Dari jawaban 70 responden yang terdiri dari 53 wanita dan 17 pria, dapat disimpulkan 2 temuan. Pertama, ditemukan bahwa nilai kesenjangan pada kelompok pengguna laki-laki dan perempuan sama-sama bernilai negatif (-) yang berarti pelayanan yang diterima pengguna kurang dari yang diharapkan dengan tingkat kesenjangan akses pada kelompok pengguna perempuan lebih besar dibandingkan dengan kelompok pengguna laki-laki dengan nilai kesenjangan pada perempuan -0,67 dan pada laki-laki -0,52. Hal tersebut, menunjukkan bahwa permasalahan kesenjangan pada kelompok pengguna perempuan lebih mendesak untuk segera diatasi guna memenuhi kebutuhan transportasi yang memadai dan meminimalisir kesenjangan akses yang terjadi pada kelompok pengguna perempuan. Kedua, kebutuhan prioritas utama penanganan kesenjangan akses pada kelompok pengguna perempuan meliputi aspek aksesibilitas dan aspek kenyamanan, sedangkan pada kelompok pengguna laki-laki hanya terkait aspek aksesibilitas. Perbedaan kebutuhan prioritas penanganan tersebut berkaitan dengan peran dan tujuan pergerakan yang dilakukan.*

***Kata Kunci** : Pengarusutamaan Gender; Bus Rapid Transit (BRT); Metode Importance-Performance Analysis (IPA)*

[Title: Application of Importance Performance Analysis (IPA) Method for Gender Based Public Transportation Planning in Corridor I Bus Rapid Transit Semarang City]. Gender-based public transport planning ensures accommodation of user group preferences to minimize inequality and discrimination among passenger needs. In the practice of accessing BRT Corridor I in Semarang City, it was identified that there were 3 aspects that determined the gap, namely: security, comfort, and accessibility. Importance Performance Analysis is used to describe the level of access gap by comparing service performance provided with passenger expectations. Of 70 respondents answered, 53 women and 17 men, two findings can be concluded. First, it was found that the value of disparity in male and female user groups was equally negative (-) which meant that services received by users were less than expected, with greater levels of access gaps for female user groups compared to male user groups with the value of the gap in women is -0.67 and in men -0.52. This shows that the problem of inequality in the female user group is more urgent to be addressed to meet adequate transportation needs and minimize the access gap that occurs in the female user group. Second, the main priority needs for handling access gaps in the female user group include accessibility aspects and comfort aspects, while in the male user group only the accessibility aspect is concerned. The role and purpose of the movement conducted are two key factors in priority differentiation.

Keywords: Gender Mainstreaming; Bus Rapid Transit (BRT); Importance-Performance Analysis (IPA) method

Citation: Esariti. L., Putri.K., & Wahyono. H. (2020). Application of Importance Performance Analysis (IPA) Method for Gender Based Public Transportation Planning in Corridor I Bus Rapid Transit Semarang City. **Jurnal Pengembangan Kota**. Vol 8 (1): 58-66. DOI: 10.14710/jpk.8.1.58-66

1. INTRODUCTION

Gender is generally used to identify differences in men and women that concentrate on social, cultural, psychological, and other non-biological aspects (Nasaruddin, 2004). In addition, according to Mulia and Anwar (2001) gender is a concept that is formed because of social construction that develops in the community to distinguish between men and women in terms of role, behavior, psychological, and characteristics. Thus, the needs of men and women for public transportation differ according to their roles. Efficient public transportation can be created, one of which is by paying attention to aspects of justice and equality in its use through gender integration in transportation (Ministry of Transportation, 2010). One of them through gender-based public transportation planning; a strategy to minimize gender gaps by paying attention to the needs, problems, and aspirations of all groups of users. Gender inequality in general is the difference in status, power, and opportunity possessed by community groups namely men, women, children, the elderly, and other vulnerable groups (Oliveira, 2014). Therefore, gender inequality occurs when one community group is in a less fortunated condition than the other group. Gender disparities in development can hamper every community group from obtaining opportunities and rights to access and benefits of development and participate in national political, economic, socio-cultural, defense and security activities in the development process (Ministry of Women's Empowerment and RI Child Protection, 2019). The factors that cause gender disparity in access to public transportation are the provision of public transportation that has not been oriented to the needs of all groups of society, both in terms of social, economic, design, and policy (Hamilton & Jenkins, 2000). Whereas according to Levi (2012) the causes of the gap in public transportation access are the lack of guarantees of safety, security, comfort, affordability, equality, and orderliness for users of public transportation. The importance of gender-based public transport planning has made the Indonesian government through Presidential Instruction Regulation No. 9 of 2000 instructing to include gender mainstreaming in all aspects of development including the transportation sector. Transportation that integrates gender means to encourage experiences, preferences and priorities of stakeholders, including men and women, to be feasibly acknowledged (Thynell, 2016).

Transportation is the most important element in development to expand people's access to health, education and employment (Williams, 2005). The existence of access to transportation, especially good public transportation can increase people's interest in using public transportation and can reduce the use of private vehicles. This is needed by big cities, such as Semarang City, which is one of the metropolitan cities in Indonesia with a population of 1,668,578 people from the period of December 2018 (BPS Kota Semarang, 2017) with the growth of private vehicles by 12% / year and the level of congestion that has reached 37 hours a year (Effendi, 2018). Therefore, the Semarang city government seeks to create a safe, convenient and inexpensive public transportation to facilitate the movement of its population, one of which is the Trans Semarang BRT transportation. However, the fact that Trans Semarang's BRT public transportation planning is not yet optimally facilitate the needs of all community groups. This is evidenced by the high rate of accidents of Trans Semarang BRT that occurred in 2018 as many as 162 cases of accidents and 12 cases of accidents in the years 2019, up to March 2019. Based on observations, it also shows that there is no regularity of service (length of waiting time), designs and available facilities cannot be accessed by all community groups especially the marginalized social groups, such as there is no ramp for disabled people, no handrails, still lack of lighting at the bus stop, as well as the insecurity of distance between the platform and the bus floor. These impact on access gaps because each group of users cannot receive maximum transportation

ISSN 2337-7062 © 2020

*Email adoeng@gmail.com

Accepted 2 February 2020, approved 30 June 2020

This paper is presented in The 2nd International Conference on SMART CITY Innovation (ICSCI) 9 October 2019, Organized by Diponegoro University, Semarang, Indonesia.

benefits. This, in accordance with gender issues in public transportation, is often found on daily services in public transportation, based on Data of the Ministry of Transportation (2010). The existence of these gaps are due to the lack of disaggregated data that contains the problems and needs based on each user group as a basis for evaluation and planning of gender-based transportation. One method that could be used to provide disaggregated data related to the problems and needs of each user group is the Importance Performance Analysis method. Since, this method ables to determine the level of access gap by comparing service performance with user expectations, in order to show the magnitude of the gap that occurs through gap calculation and indicate specifically which attributes are the needs and priorities of handling gaps from each user group using Cartesian diagram. Therefore, Importance Performance Analysis is best described the gaps between implementation and design (Irawan, 2002). In this case, the BRT Corridor I Semarang City is indicated to have gaps on safety, comfort and accessibility and therefore it is important to investigate the implementation and expectations between user groups.

It is evidence that the different roles of women and men creates different impacts on the need for transportation, even though all public transportation users want safe, timely, organized, comfortable and easily accessible transportation. However, based on the Ministry of Transportation (2010) men tend to have priority related with speed and timeliness. On another hand, women groups tend to see transportation priority on modal feasibility, comfort, security, and ease of access based. In addition, in 2000, the World Bank conducted a study which indicated that there were four main priorities for women consideration in choosing public transportation, namely security from theft and harassment; road safety (accident); cost and convenience. Ng and Acker (2018) and Clarke (2012) also emphasize the capacity of passengers to avoid overloading passengers, because passenger overload could increase the risk of harassment when the situation in public transportation is congested and crowded, and also to pay attention to the frequency, regularity and predictability of transportation services for reduce waiting time. This is because the longer the waiting time for transportation access influences the quantity of movement and affects the higher risk of crime such as harassment and pickpocketing, especially at night or in quiet places.

Therefore, in transportation planning, it is necessary to pay attention to the aspects of security, comfort, and accessibility, to facilitate the specific needs of each group, both women and men. In the end, it can be used to determine the appropriate action plans to solve the different problems and needs of each group in order to meet the mobility needs of urban communities to improve quality of life (Wefering, Rupprecht, Bührmann, & Böhler-Baedeker, 2013).

Sustainable transportation planning can be created by involving the community in planning so that it can create specific planning by looking at the needs of each individual (Lindenau & Böhler-Baedeker, 2014). This was also stated by Peters (2013) that to create sustainable urban mobility, specific policy responses and interventions are needed based on issues of gender inequality in accessing transportation to fulfill travel patterns based on the needs and roles of each individual. Transportation planning that project specific user needs will result in gender-sensitive transportation design and sustainable urban transportation (Peters, 2013). Thus, in this case, the importance performance analysis method is used to find out the specific transportation needs of each group of female and male users because it is based on the user's assessment of service quality to determine the needs of each user that is not yet available or needs to be improved. This helps the government to evaluate the policies / programs available for better transportation services, so as to create sustainable urban mobility.

2. METHOD

This study uses a quantitative descriptive approach based on user-approach with the type of survey research. The population object in this research is Semarang Corridor I BRT passengers, approximately 70 respondents based on calculations using the Lameshow formula for infinite populations (unlimited population numbers) consisting of 53 women and 17 men.

Ingender related research, reliability of sampling composition is not determined by equal number proportion, rather on exploration of experiences and user expectations in accessing BRT services. The sampling technique uses purposive sampling technique. Each respondent filled out 3 parts of the questionnaire, namely the profile section of the respondent, the performance appraisal section and the respondents' assessment section on the Trans Semarang Corridor BRT service with 33 statements related to aspects of security, comfort, and accessibility. Assessment is done using the Likert 1 to 4 measurement scale, each of which shows strongly disagree (1) to strongly agree (4) (to assess the level of performance / satisfaction) and is very insignificant (1) to very important (4) (to assess level of expectations / interests) of each statement in the questionnaire. The results of the valuation calculation are used to find out how much of the access gap in Corridor I uses gap calculation analysis and how the main priority is handled through Cartesian diagram analysis as a recommendation for future service improvements.

3. RESULT AND DISCUSSION

The Importance Performance Analysis (IPA) method in this article is used to determine the magnitude of the gap in each aspect, namely security, convenience, and accessibility obtained based on gender issues related to public transportation that are often found in the field based on the Ministry of Transportation report (Ministry of Transportation, 2010). In addition, IPA is useful to determine the priority needs action plans shoukd be taken. In this article, the security aspects used are related to security facilities in buses and bus stops, aspects of comfort related to conditions and quality in buses and shelters, and accessibility aspects related to service time and ease of access to BRT transportation in Corridor I. User groupings are divided by sex that is based on femal and male user groups as follows.

3.1. Calculation of access gaps based on groups of female users

The Importance Performance Analysis method was calculated by subtracting the average performance score with the average score of user expectations for services related to the safety, comfort, and accessibility of Trans Semarang Corridor BRT transportation, as in Table 1. the following.

Table 1. Gap Analysis Based on Female User Groups

Aspect	Performance Average	Importance Average	Gap Value
Safety	3,13	3,72	-0,59
Comfort	2,94	3,62	-0,68
Accessibility	2,94	3,67	-0,73
Gap Average			**-0,67**

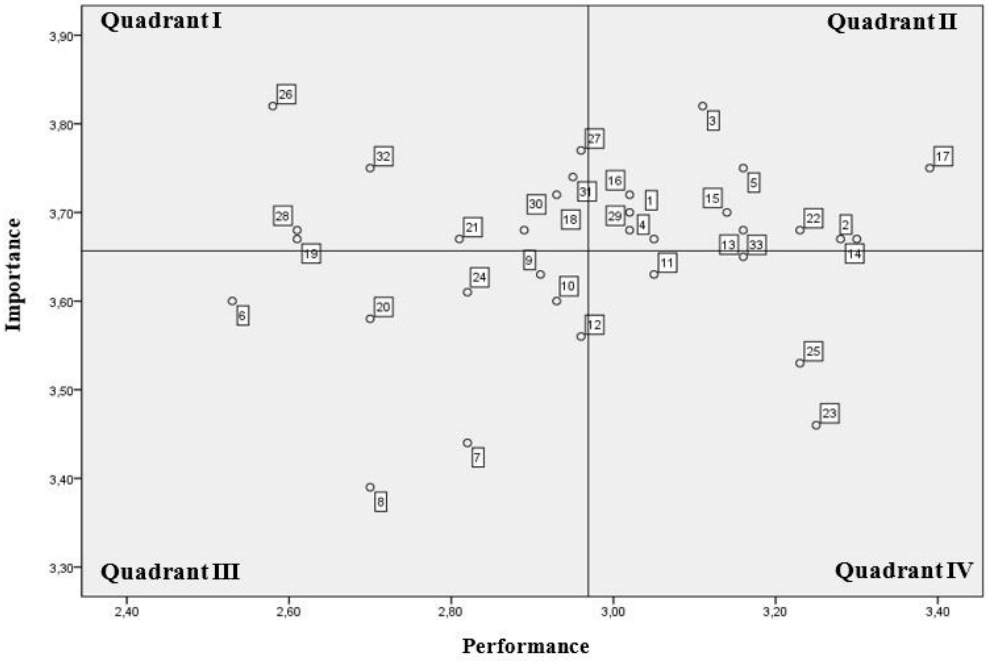
Source: Processed Primary Data, 2019

The greater the gap value, the greater the gap between performance and expectations for the service based on user perceptions (Irawan, 2002). Based on the calculation results, it is known that all gap values are (-) which means that there is customer dissatisfaction with the attributes in terms of security, comfort, and accessibility. The overall gap average score is -0.67, with the largest gap value in the accessibility aspect with a gap value of -0.73. Therefore, there is a need for service improvements related to these 3 aspects, especially related to accessibility aspects which have the highest gap value.

3.2. Priority for action plans based on women's user groups

Result from previous calculation helps to determine the action plans needs to be taken, as described in the Diagram below.

The Cartesian diagram (Figure 2) shows that there are 9 attributes included in Quadrant I which are the top priority for action plans, 12 attributes in quadrant II which are attributes that must be maintained, 8 attributes in Quadrant III which are low priority to be conducted because attributes are considered less important to users, and there are 4 attributes in quadrant IV which are attributes that have better performance values and have lower expectation values according to users. Therefore, the attributes that enter into Quadrant I are attributes that are the top priority to be addressed immediately to minimize the occurrence of access gaps and improvement of service quality.



Source: Analysis of Researchers, 2019

Figure 1. Cartesian Diagram Based on Female User Groups

Quadrant I (Priorities for Improvements)

18	Distance and height of the platform
19	Bus load capacity
21	Number of buses in operation
26	The accuracy of the bus arrival schedule
27	The accuracy of the bus departure schedule
28	Duration The waiting time for arrival is more than 15 minutes
30	Ease of accessing BRT when returning from work
31	Ease of accessing the BRT when leaving for work
32	Headway

Quadrant II (Keep Up The Good Work)

1	low exhaust emissions
2	The condition of the bus body is feasible
3	Orderly traffic bus driver
4	lighting in the shelter
5	There are no pickpocketing, theft, harassment & other criminal acts
13	Quality of air conditioning in the bus
14	Clean buses don't have trash
15	Buses do not stink
16	The height of the vertical handle on the bus
17	Use of priority seating for pregnant women, the elderly and children according to their functions
22	Availability of information about routes
29	Schedule of services according to the needs of passengers

Quadrant III (Lowest Priority)

6	Availability of seats at the shelter
7	Cleanliness of the shelter
8	Scribble in the shelter
9	The condition of the shelter smelled
10	The temperature of the room at the shelter is too hot
12	Bus noise and vibration levels disturb passenger comfort
20	Load capacity in the shelter
24	Availability of information about bus arrival and departure schedules

Quadrant IV (Possible Overkill)

11	The seating position on the bus is very comfortable
23	Availability of information about tariffs
25	The information available is easy to understand
33	the location of the shelter is close to the pedestrian path and pedestrian facilities

Source: Analysis of Researchers, 2019

Figure 2. Detailed Results of the Cartesian Diagram Based on Female User Groups

Aspects included in Quadrant I are comfort and accessibility. The main priority for action plans in women's user groups on aspects of accessibility related to timeliness (arrival and departure schedules, waiting times, intermediate times, ease of access during peak hours of work and return to work). In addition, on aspects of comfort, it is classified that passenger capacity, the number of fleets operating, and the far distance between the bus and the shelter are important to be planned.

The time accuracy is ranked first priority when associated with the dual role of women in terms of productive and reproductive roles, they need time management, so that activities could be carried out efficiently at home and outside the home. In addition, if it is related to the purpose of the movement of women users, it is dominated by road activities related to shopping activities. The accuracy is needed to create effective time management. This confirms the statement from Kunieda and Gauthier (2007), women also travel more to several locations at once compared to men with relatively closer distances.

This, in accordance with the opinion of Preston and Rajé (2007) which states that women need public transportation modes that can meet their mobility needs that require timeliness in order to be able to move efficiently. The absence of regularity and accuracy could affect their activities and could increase the risk of crime experienced by women. According to Clarke (2012) the longer the waiting time for transportation access, the higher risk of crime such as harassment and pickpocketing especially for women at night or in quiet places. Hence, accuracy is a top priority for women's user groups to be addressed immediately.

Cargo capacity is also a top priority for handling groups of women because it disrupts the comfort of users resulting in jostling in the bus. Jostling in the bus could increase the risk of criminal acts such as harassment and pickpocketing. Attempts to minimize the risk of problems arising from overcrowding capacity, for example, the presence of separating areas between men and women remain a problem for women's groups because several people are required to stand up and hold onto high vertical ropes to maintain balance for a few minutes, felt by several female users would be a comfort intervention. Not to mention, if the passenger shoud bring goods, it creates hassles for them. The number of fleets operating in rush hours is also included in the main priority, as it could have an impact on the headway, waiting time and the density of the load capacity on the bus which might result in overcrowding. The increase in the number of operating fleets increases the frequency of departures between fleets to be more frequent, so that the headway could be smaller. The far distance between the bus and the shelter causes inconvenience to women passengers, because they are required to jump, which can affect the safety and comfort of users (Ministry of Transportation, 2010). To respond to this, the BRT management provides a solution by the availability of a staff on the bus to help users who have difficulty when going up / down.

3.3. Calculation of access gaps based on male user groups

Calculation of access gaps in male user groups is conducted the same as in female user groups, by subtracting the average performance score with the average score of user expectations for services related to the aspects of security, convenience and accessibility of Trans Semarang BR Corridor I transportation, as in Table 2. the following.

Table 2. Gap Analysis Based on Male User Groups

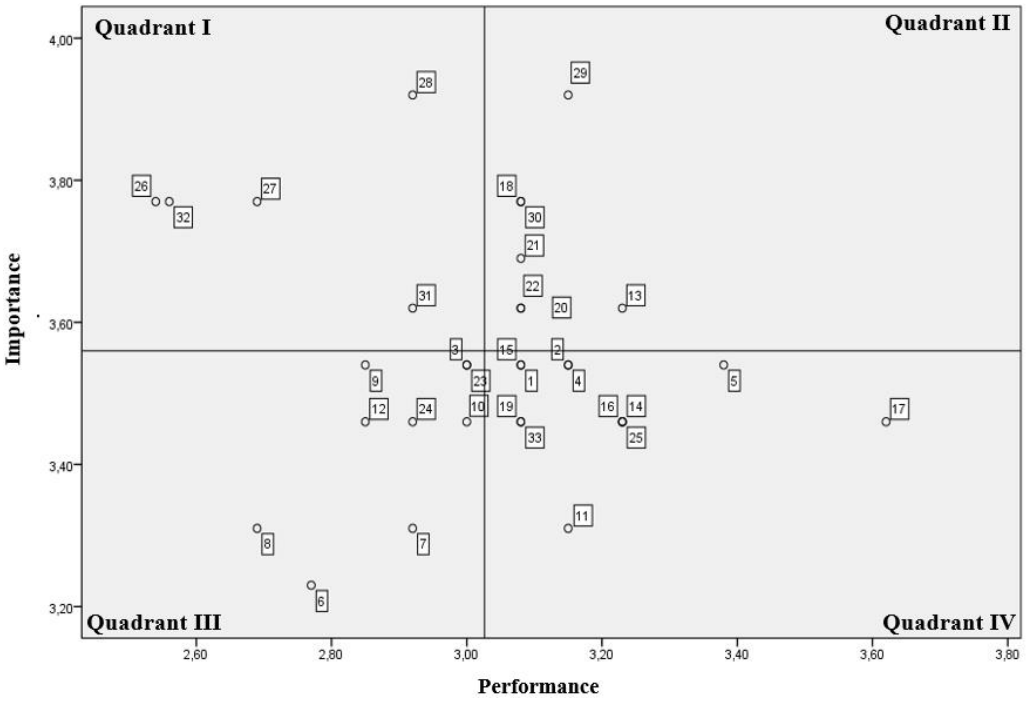
Aspect	Performance Average	Importance Average	Gap Value
Safety	3,15	3,54	-0,39
Comfort	3,04	3,46	-0,42
Accessibility	2,95	3,70	-0,75
Gap Average			**-0,52**

Source: Processed Primary Data, 2019

Based on the results, it is clear that all gap values are (-) which means that there is dissatisfaction with the attributes used in this study. The overall average gap is -0.52, and the largest gap value is accessibility aspect.

3.4. Priority needs for action plans based on male user groups

After magnitude of the gap access value is calculated, priority for action plans could be estimated. The Cartesian diagram below produces attributes that are divided into 4 quadrants as follows.



Source: Analysis of researchers, 2019

Figure 3. Cartesian Diagram Based on Male User Groups

Quadrant I (Priorities for Improvements)

26	The accuracy of the bus arrival schedule
27	The accuracy of the bus departure schedule
28	Duration The waiting time for arrival is more than 15 minutes
31	Ease of accessing the BRT when leaving for work
32	Headway

Quadrant II (Keep Up The Good Work)

13	Quality of air conditioning in the bus
18	Distance and height of the platform
20	Load capacity in the shelter
21	Number of buses in operation
22	Availability of information about routes
29	Schedule of services according to the needs of passengers
30	Ease of accessing BRT when returning from work

Quadrant III (Lowest Priority)

3	Orderly traffic bus driver
6	Availability of seats at the shelter
7	Cleanliness of the shelter
8	Scribble in the shelter
9	The condition of the shelter smelled
10	The temperature of the room at the shelter is too hot
12	Bus noise and vibration levels disturb passenger comfort
23	Availability of information about tariffs
24	Availability of information about bus arrival and departure schedules

Quadrant IV (Possible Overkill)

1	low exhaust emissions
2	The condition of the bus body is feasible
4	lighting in the shelter
5	There are no pickpocketing, theft, harassment & other criminal acts
11	The seating position on the bus is very comfortable
14	Clean buses don't have trash
15	Buses do not stink
16	The height of the vertical handle on the bus
17	Use of priority seating for pregnant women, the elderly and children according to their functions
19	Bus load capacity
25	The information available is easy to understand
33	the location of the shelter is close to the pedestrian path and pedestrian facilities

Source: Analysis of researchers, 2019

Figure 4. Detailed Results of the Cartesian Diagram Based on Male User Groups

Based on the Cartesian diagram (Figure 4), it shows that there are 5 attributes in Quadrant I which are the main priorities in handling, 7 attributes in Quadrant II which are attributes that must be maintained for the next time because they are considered very important / expected. On another hand, there are 9 attributes in Quadrant III which are low priority for action plans because attributes are considered less important to users. And there are 12 attributes in Quadrant IV which are attributes that have better performance values and have lower expectation values according to users.

Based on Table 2, it is obvious that only the accessibility aspects are the top priority based on the assessment of male user groups. The accuracy of the arrival schedule, arrival and departure schedule, headway, and easy access during rush hour to work until the waiting time of more than 15 minutes are the main priority should be addressed. This is in accordance with the Ministry of Transportation [10] which states that men tend to choose transportation modes that are fast and have accuracy. In another words, it relates to the men's movement characteristic needs high mobility to access work. According to Williams (2005) the guarantee of the accuracy of public transportation services will have an impact on increasing access to employment, education, and health which improve of the economy and the welfare of the community. According to major answer by the respondents whom employee, the inaccuracy of public transportation modes could impact on users' loss, such as sanctions. For example: salary deductions, deductions from benefits, or even penalties for delays.

4. CONCLUSION

It has been explained, that Importance Performance Analysis Method is efficient to evaluate public transportation services by describing the problems and needs of each user group in designing gender-based public transport planning for the improvement of the quality of available transportation services. It is specificly presented the magnitude of the gap in each aspect and each group of users and the priority needs for action plans.

It is obvious, that there is still dissatisfaction of male and female users of transportation services which are calculated based on the gap value (-) with the highest gap value obtained in the women's group at -0.67 which means that solving the problem gap in women's groups is more urgent compared to men who have a gap value of -0.52. In addition, for designing gender-based public transportation planning in Corridor I several factors needs to be addressed. Those are, for women's user groups covering accessibility aspects (accuracy of bus arrival and departure times, waiting times, ease of access during rush hour) and comfort aspects (load capacity, the number of operating fleets, as well as the far distance between the bus and the shelter). On the contrary, in the male user group only the accessibility aspect (accuracy of arrival and departure times, waiting time, and ease of access during rush hour) is urgent. The difference in priority needs of women and men is influenced by the role and purpose of the movement. This confirms statement of Ministry of Transportation (2010), that men need accuracy and fast movement over other aspects. Whereas, Clarke (2012) recommends that women are looking for comfort in term of public transport services.

In sum, the benefit of Applying IPA are (a) could describe specifically which attributes are the needs and priorities of handling gaps that must be immediately corrected or improved, and (b) easy to use to measure gaps related to the quality of service performance because it is clear the magnitude of the gap obtained from the calculations performed. The disadvantages of using IPA are (a) not clearly defined the minimum provisions for the number of respondents that can be used, because some literature states the number of respondents needed depends on the depth of the research. Last, (b) there is no standard classification of gaps, which is high and low should be. The direction of the amount of the gap can be predicted from the amount of the gap value, if (-) means that the user is not satisfied with the service available because the value of performance is smaller than the expected value, if (+) the service is considered good.

5. REFERENCES

BPS Kota Semarang. (2017). *Kota Semarang Dalam Angka* (www.semarangkota.bps.go.id).

Clarke, M. (2012). Making Transport Work for Women and Men: Challenges and Opportunities in the Middle East and North Africa (MENA) Region-Lessons from Case Studies: The World Bank.

Effendi, H. (2018, 18 March 2018). Kemacetan di Semarang Mencapai 37 Jam Per Tahun, *Metrojateng*. Retrieved from https://metrojateng.com/kemacetan-di-semarang-mencapai-37-jam-per-tahun/

Hamilton, K., & Jenkins, L. (2000). A Gender Audit for Public Transport: A New Policy Tool in The Tackling of Social Exclusion. *Urban Studies, 37*(10), 1793-1800. Doi: https://Doi.org/10.1080%2F00420980020080411

Irawan, H. (2002). Prinsip Kepuasan Pelanggan. *Jakarta: Elex Media Komputindo, 54*, 55.

Kunieda, M., & Gauthier, A. (2007). Gender and Urban Transport: Fashionable and Affordable *Sustainable Transport: A sourcebook for Policy-Makers in Developing Cities. Module 7a: Gender and Urban Transport: Smart and Affordable* (http://www.itdp.org/wp-content/uploads/2014/07/7aGenderUTSept300.pdf). Eschborn: GTZ.

Levi, A. P. A. (2012). Transportasi Publik yang Berkesetaraan Gender dan Sosial. 1-20.

Lindenau, M., & Böhler-Baedeker, S. (2014). Citizen and Stakeholder Involvement: A Precondition for Sustainable Urban Mobility. *Transportation Research Procedia, 4*(0), 347-360. Doi: 10.1016/j.trpro.2014.11.026

Ministry of Transportation. (2010). *Panduan Pengintegrasian Aspek Gender dalam Perencanaan dan Penganggaran Kementerian Perhubungan*.

Ministry of Women's Empowerment and RI Child Protection. (2019). *Pembangunan Manusia Berbasis Gender 2019*. Jakarta Ministry of Women's Empowerment and RI Child Protection.

Mulia, S. M., & Anwar, M. (2001). Keadilan dan Kesetaraan Gender (Perspektif Islam). *Tim Pemberdayaan Perempuan Bidang Agama Departemen Agama RI*.

Nasaruddin, U. (2004). *Argumen Kesetaraan Gender; Perspektif Al-qur'an*. Jakarta: Paramadina.

Ng, W.-S., & Acker, A. (2018). *Understanding Urban Travel Behaviour by Gender for Efficient and Equitable Transport Policies.* (http://dx.Doi.org/10.1787/eaf64f94-en), International Transport Forum Discussion Paper.

Oliveira, C. (2014). Empowerment Labs: Gender Equality, Employability and Theatre Catalyzing Social Change. *Procedia-Social and Behavioral Sciences*, 56-63. Doi: 10.1016/j.sbspro.2014.12.010

Peters, D. (2013). *Gender and Sustainable Urban Mobility*. Retrieved from http://dspace.ceid.org.tr/xmlui/bitstream/handle/1/104/ekutuphane4.2.7.1.pdf?sequence=1&isAllowed=y.

Preston, J., & Rajé, F. (2007). Accessibility, Mobility and Transport-Related Social Exclusion. *Journal of Transport geography, 15*(3), 151-160. Doi: https://Doi.org/10.1016/j.jtrangeo.2006.05.002

Republic Indonesia. (2000). *Intruksi Presiden Nomor 9 Tahun 2000 Tentang Pengarusutamaan Gender dalam Pembangunan Nasional Presiden Republik Indonesia*.

Thynell, M. (2016). The Quest for Gender-Sensitive and Inclusive Transport Policies in Growing Asian Cities. *Social Inclusion, 4*(3), 72. Doi: 10.17645/si.v4i3.479

Wefering, F., Rupprecht, S., Bührmann, S., & Böhler-Baedeker, S. (2013). *Guidelines. developing and implementing a sustainable urban mobility plan.* Paper presented at the Workshop, Mar.

Williams, B. (2005). Gender and Urban Transport. *Habitat Debate, 11*(1), 10.